

In re Application of: Wagener et al.
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REMARKS

Claims 7-8 and 13-31 are withdrawn from further consideration as being drawn to non-elected subject matter. Applicants hereby reserve the right to pursue the subject matter of the canceled claims in one or more divisional patent applications.

Claim Objections

2. Claims 1-6 and 9-12 are objected to because of the following informalities:

In Claim 1 (line 1), Applicants are advised to remove "molecule comprising a".

In Claims 2-6 and 9-12 (line 1), Applicants are advised to replace "molecule" with -- polymer --.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Claims 4-6 and 9-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites the limitations "R", "R₁" and "z" in lines 2-3. There are insufficient antecedent base for these limitations in the claim.

Claim 5 recites the limitations "R" and "y" in line 2. There are insufficient antecedent base for these limitations in the claim.

In Claim 6 (line 2), it is not clear as to what "compound 3" refers to.

In Claims 9-10 (line 3) and Claim 10 (line 1), "chain-end crosslinking molecule" causes confusion because it appears that C is not a "free" molecule.

In Claim 10 (line 2), it is not clear as to what "compounds 5 and 6" refers to.

In Claim 11 (line 2), it is not clear as to what "compound 7" refers to.

In Claim 12 (line 2), it is not clear as to what "compound 10" refers to.

Claims 4-6 have been withdrawn. Claims 9-12 have been withdrawn and replaced with claims 32-36 which distinctly claim the subject matter of original claims 9-12 that applicant regards as the invention. Claims 32-36 have been written to address the claim objections and claim rejections above. The subject matter of claim 10 has been divided into two new claims 33 and 36. Support for all new claims can be found throughout the specification. No new matter has been added by virtue of these newly presented claims 32-36 and their entry is respectfully requested.

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Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-2 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Yajima600 (US 4 220 600).

Yajima600 discloses a poly(carbosilane-co-carbosiloxane) having a latent hydrogen group. Note that the Si-H and/or Si(H)₂ groups at the chain ends are crosslinkable groups. (col. 10, line 52 to col. 11, line 16)

Yajima600 teaches carbosilanes-co-carbosilixanes that do not fall within the formula of the newly submitted claims 32-36. Yajima600 describes carbosilanes with a backbone of alternating silicon and carbon atoms. The pending claims are directed to carbosilanes where every silicon atom is separated by at least two carbon atoms. Applicant respectfully requests that the Examiner allow pending claims 32-36.

7. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Yajima576 (US 4 358 576).

Yajima576 discloses a poly(carbosilane-co-carbosiloxane) having a latent hydrogen group. (col. 5, lines 29-36 and col. 6, lines 25-27)

Yajima576 teaches carbosilanes-co-carbosilixanes that do not fall within the formula of the pending claims. The carbosilanes of Yajima576 have a backbone of alternating

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silicon and carbon atoms. The pending claims define carbosilanes where every silicon atom is separated by at least two carbon atoms.

8. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by

Dvornic (US 6 384 172).

Dvornic discloses a poly(carbosilane-co-carbosiloxane) having a latent reactive group of chlorine, ethoxy, methoxy, etc. (col. 2, lines 35-45, col. 4, line 60, col. 5, line 49 to col. 6, line 5)

Dvornic teaches hyperbranched siloxane-carbosilanes. The siloxane-carbosilanes taught by Dvornic generally have 2 carbon atoms between the silicon atoms. The one exception in Dvornic has 3 carbon atoms between the silicon atoms. The pending claims define carbosilanes where more than half of the silicon atoms will be separated by at least 8 carbons and are not hyperbranched structures.

9. Claims 1-3 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by

Yoshitake (US 6 184 407).

Yoshitake discloses a poly(carbosilane-co-carbosiloxane) having a latent methoxy group. Note that the Si-H, Si-OC₂H₅ or Si-glycidoxypyrpyl groups at chain ends are crosslinkable groups. (col. 5-col. 6 and col. 12, lines 35-40)

Yoshitake teaches siloxane-carbosilanes having 2 carbon atoms between the silicon atoms and are a regularly expanding, dendritic, hyperbranched structures. The present application describes carbosilanes where more than half of the silicon atoms will be separated by at least 8 carbon atoms and are not hyperbranched structures. Applicant respectfully requests that the Examiner allow pending claims 32-36.

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10. Claims 1-6 and 9-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Brezezinska (Journal of Polymer Science, Part A: Polymer Chemistry, vol. 38 (2000), 1544-1550).

Brezezinska discloses a poly(carbosilane-co-carbosiloxane) by copolymerizing the corresponding carbosilane and carbosiloxane precursors, which has a latent methoxy group. Note that compound 5 should possess alkenyl groups at the chain ends because of the acyclic diene metathesis method used for preparing the copolymer, which are crosslinkable groups. Furthermore, the methoxy groups can be at the chain ends, which can be considered as crosslinkable groups too. (Figure 2) Furthermore, a copolymer having chlorine latent reactive group can also be prepared by using similar technique. (page 1549, right column, last paragraph)

Claims 1-6 have been withdrawn. Claims 9-12 have been withdrawn and replaced with claims 32-36 which distinctly claim the invention. Support for these amendments can be found throughout the specification. No new matter has been added. Brezezinska et al. does not teach copolymers which have ADMET cross-linking sites as in claims 32-35. Brezezinska et al. does not teach copolymers with oligoethers as does claim 36 of the present application. Applicant respectfully requests that the Examiner consider and allow claims 32-36.

Applicants have made every effort to present claims which distinguish over the cited art, and it is believed that all claims are in condition for allowance. However, Applicants invite the Examiner to call the undersigned if it is believed that a telephonic interview (direct line (561)

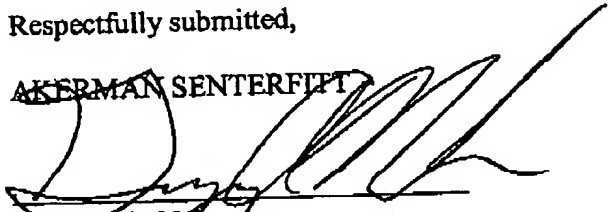
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671-3656) would expedite the prosecution of the application to an allowance. The Commissioner for Patents is hereby authorized to charge any deficiency in fees due or credit an excess in fees with the filing of the papers submitted herein during prosecution of this application to Deposit Account No. 50-0951.

Respectfully submitted,

~~AKERMAN SENTERFITT~~



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